

# Phoenix Experiences Hottest Summer on Record

By Don Sutherland

For the third time in five years, Phoenix experienced its hottest summer on record. As had been the case during the prior record-breaking summers of 2020 and 2023, the persistence of the heat, once it set in, was remarkable.

On account of the persistence of the heat, Phoenix saw its longest stretches of 80° or above lows, 100° or above highs, and 105° or above highs: 74 consecutive 80° lows (old record: 51 days), 97 consecutive highs of 100° or above through August 31 (old record: 76 days), and 63 consecutive 105° or above highs (old record: 56 days). Early in September, Phoenix’s streak of 100° days reached and then exceeded 100 consecutive days. Until this year, no major U.S. population center (500,000 or more people) had ever witnessed such a stretch of 100° heat. This year, both East Mesa and Phoenix reached and then exceeded 100 consecutive days.

Anthropogenic climate change amplified by the urban heat island effect is driving a warming of Arizona’s and Phoenix's summers. Data from a joint May 2024 report published by Climate Central, Red Cross Red Crescent Climate Centre and World Weather Attribution revealed that the influence of climate change has resulted in a 231.1% increase in Arizona’s days with temperatures above the 90th percentile (1991-2020 baseline) over the figure expected without the influence of climate change.

The warming has accelerated in recent decades. Between 1950 and 2023, summers have warmed by 0.6° per decade in Phoenix. Since 1980, summers have warmed by 0.9° per decade.

Select summer data:

Table 1: 20 Hottest Summers

Rank	Mean Temperature	Year (s)
1.	99.0°	2024
2.	97.1°	2023
3.	96.7°	2020
4.	95.1°	2013, 2015
6.	94.9°	2007, 2019
8.	94.8°	1981, 2002, 2011, 2022
12.	94.7°	2003
13.	94.6°	2006, 2016
15.	94.5°	2017
16.	94.4°	1988, 1989
18.	94.3°	2012, 2018
20.	94.1°	2009

Table 2: Progression of Summer Records (Averages)

Mean Temperature	High Temperature	Low Temperature
88.3°, 1896	102.0°, 1896	74.7°, 1896
89.0°, 1898	102.7°, 1900	76.1°, 1898
89.1°, 1924	102.9°, 1901	77.7°, 1931
89.4°, 1929	103.2°, 1922	78.2°, 1933
90.5°, 1931	103.8°, 1924	78.8°, 1958
91.7°, 1933	105.2°, 1933	79.2°, 1970
91.8°, 1958	105.5°, 1973	81.5°, 1977
91.9°, 1970	106.0°, 1974	83.4°, 1981
93.5°, 1977	107.0°, 1978	83.5°, 2006
94.8°, 1981	108.6°, 2020	83.6°, 2007
94.9°, 2007	109.2°, 2023	84.0°, 2015
95.1°, 2013	110.4°, 2024	84.9°, 2020
96.7°, 2020		87.5°, 2024
97.1°, 2023		
99.0°, 2024		